



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,930	01/18/2002	Chris E. Wallace	708-1012	1584

23644 7590 03/24/2005

BARNES & THORNBURG
P.O. BOX 2786
CHICAGO, IL 60690-2786

EXAMINER

REFAI, RAMSEY

ART UNIT	PAPER NUMBER
----------	--------------

2154

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,930

Applicant(s)

WALLACE ET AL.

Examiner

Ramsey Refai

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-16 are presented for examination.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 15 and 16 are directed to non-statutory subject matter as being drawn to a program per se. Programs per se are not one of the statutory classes of invention. Programs must be tangibly embodied on a computer readable medium and be drawn to a practical application in order to be eligible for patent protection

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 1, 3, and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 1 recites the limitation "every transmitter and receiver" in line 4. There is insufficient antecedent basis for this limitation in the claim.

7. Claims 3 and 8 recite the limitation "whereby to prevent the network manager effecting changes under fault conditions". It is not clear what is meant by this limitation, whether the

network manager is prevented *from* effecting changes under fault changes or preventing the network manger *by* effecting changes under fault conditions.

Claim Objections

8. Claims 9 and 10 are objected to because of the following informalities:

A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Appropriate correction is required.

Specification

9. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 3 and 8 recite the limitation "fault conditions". The specification fails to explain what these fault conditions pertain to.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Olivia et al (U.S. Patent No. 6,654,802).

12. As per claim 1, Olivia et al teach a method for determining the connectivity of nodes in a communication network comprising a plurality of interconnected nodes (**column 3, lines 7-9 and abstract**), the method comprising transmitting into the network a signal from each node (**column 3, lines 11-15 and abstract**), the signal constituting a signature unique to that node (**column 3, lines 11-15 and 32-40 and abstract**) detecting unique signature data from every transmitter and receiver (**column 3, lines 30-40 and abstract**), and correlating the detected data to determine the physical connectivity of the network (**column 3, lines 16-23 and abstract**).

13. As per claim 2, Olivia et al teach step of each node reporting transmission of a unique signature and detection of a unique signature to a network manager controlling the network (**abstract and column 6, lines 51-67**).

14. As per claim 3, Olivia et al teach the step wherein a node that was previously receiving a valid unique signature does not report detection of an invalid signature, whereby to prevent the network manager effecting changes under fault conditions (**column 7, lines 3-40**).

15. As per claim 4, Olivia et al teach the step wherein under circumstances in which a node has not detected a unique signature matching a transmitted signature, the network manager creates an off-network pointer for the said node (**column 5, line 59 – column 6, line 15**).

16. As per claim 5, Olivia et al teach the steps of establishing a unidirectional trail in the network manager from a second node to a first node when the first node detects the unique signature of the second node (**column 3, lines 16-53**); establishing a unidirectional trail in the network manager from the first node to the second node when the second node detects the unique signature of the first node; and thereby establishing a bidirectional trail between the first node and the second node (**column 3, lines 16-53**).

17. As per claim 6, Olivia et al teach a communication network comprising a plurality of interconnected nodes (**column 3, lines 7-9**), the network provided with means for determining the connectivity of said nodes (**column 3, lines 7-15 and abstract**), comprising a transmitter per node for transmitting into the network a signature signal from each node, the signal constituting a signature unique to that node (**column 3, lines 12-16 and abstract**), a detector per node for detecting unique signature data received at each said node (**column 3, lines 12-16 and 40-54 and abstract**), and a correlator for correlating the detected unique signature data to determine the physical connectivity of the network (**column 3, lines 15-23 and abstract**).

18. As per claim 7, Olivia et al teach reporting means whereby each node reports transmission of a unique signature and detection of a unique signature to a network manager controlling the network (**abstract and column 6, lines 51-67**).

19. As per claim 8, Olivia et al teach blocking means whereby a node that was previously receiving a valid unique signature does not report detection of an invalid signature, whereby to prevent the network manager effecting changes under fault conditions (**column 7, lines 3-40**).

20. As per claim 9, Olivia et al teach an off-network pointer creating means whereby, when a node has not detected a unique signature matching a transmitted signature, the network manager creates an off-network pointer for the said node (**column 5, line 59 – column 6, line 15**).

21. As per claim 10, Olivia et al teach trail establishing means whereby to establish a unidirectional trail in the network manager from a second node to a first node when the first node detects the unique signature of the second node (**column 3, lines 16-53**); establish a unidirectional trail in the network manager from the first node to the second node when the second node detects the unique signature of the first node; and thereby to establish a bidirectional trail between the first node and the second node (**column 3, lines 16-53**).

22. As per claim 11, Olivia et al teach a communication network as claimed in claim 6, wherein the network is an optical communication network (**column 1, lines 27-38**).

Art Unit: 2154

23. As per claim 12, Olivia et al teach a network manager for a communication network, the communication network comprising a plurality of interconnected nodes (**column 3, lines 7-23**), the network manager provided with correlator means for determining the connectivity of said nodes in response to detection at each node of unique signature signals transmitted into the network from each node (**column 3, lines 15-23 and column 6, lines 50-67**), said correlator means adapted to correlate the detected unique signature signals to determine the physical connectivity of the network (**column 3, lines 15-23 and abstract**).

24. As per claims 13 and 15, these claims contain similar limitations as claim 1 above, therefore are rejected under the same rationale.

25. As per claims 14 and 16, these claims contain similar limitations as claim 6 above, therefore are rejected under the same rationale.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Moiin et al (U.S. Patent No. 5,999,712)
- b. Diebboll et al (U.S. Patent No. 5,886,643)
- c. Strickler et al (U.S. Patent No. 6,122,630)
- d. Small (U.S. Patent No. 6,522,654).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Refai whose telephone number is (571) 272-3975. The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 Ramsey Refai
JOHN FOLLANSBEE Examiner
SUPERVISORY PATENT EXAMINER Art Unit 2154
TECHNOLOGY CENTER 2100

RR
March 1, 2005